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10/735,895	12/15/2003	Claire-Sabine Randriamasy	Q78907	8995

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER
PATEL, JAY P

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *claims received on 6/8/2004.*

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-5 and 8-21* is/are rejected.

7) ☒ Claim(s) *6-7* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *08 June 2004* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some *   c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   Claims 9-14 and 20 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

3.   In regards to claim 9, the term "nondominate" is vague; it is unclear as to how the

performance values are "nondominated" in relation to a possible path.

4.   In regards to claim 20, the entire claim is vague; how do the weighting factors

determine the position of the criteria in the table.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-5, 8, 15-17 and 21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Fedyk et al. (US Patent 7283477 B1) in view of Lee et al. (US

Publication 20030028670 A1).

3.   In regards to claim 1, Fedyk shows if figure 3 a process to allocate bandwidth to

configure LSPs over a MPLS domain. The process runs on LER 11 in figure 1 (a device

for determining labeled data stream switchpath (s) in a label switched communication

network comprising a multiplicity of label switched routers (LSR)). Fedyk also states

that "MPLS uses a Forwarding Equivalence Class (FEC). The FED enables the MPLS

protocol to map traffic to an LSP in a variety of ways. Two packets are considered to be

in the same FEC if they are to be routed along the same path" (see column 3, lines 60-

64) (each stream being associated with a chosen FEC).

Furthermore, LER 11 is inclusive of a memory 64 further inclusive of routing table

and topology database 70 (a memory means). Furthermore, the process 40 selects a

path based on the amount of bandwidth available and the number of hops by

referencing the topology database (information data containing of a descriptive structure

representative of state of utilization and of a topology of the network) (see column 5,

lines 48-50 and column 6, lines 1-15). Furthermore, determination of whether a LSP

can be accommodated refers to any data-transfer parameter such as desired bitrate or

QoS (service data representative of at least two chosen criteria) (column 5, lines 50-54).

Furthermore, LER 11 is inclusive of a processor 72 (processing means).

Furthermore, if the process determines that the selected network path contains

sufficient bandwidth to accommodate the LSP, the process obtains the cost associated

with using the bandwidth from the selected network path. Where cost refers to the

number of hops (ensure the connectivity of said multiplicity of nodes on the basis of

information data stored in the descriptive structure) on the selected network path

(column 6, lines 1-11).

In further regards to claim 1, Fedyk fails to specifically teach a request for path

set up, calculating possible paths taking account of at least one of the two criteria and to

deduce an ideal solution form performances of said possible paths on at least one of

said criteria, assigning each possible path an interest value taking account of ideal

solution and then classify said possible paths taking account of their respective interest

values and to select a path from among said classified possible paths and then

associate with said stream to be switched a label representative of said selected path

so that said labeled stream is switched via said path to the destination node.

Lee et al. however teach the above-mentioned limitations. Figure 5 in Lee shows

a process of network path selection in an MPLS domain. At step 5-2, a request is

received for a best effort (taking into account at least one of two criteria since best effort

service volume can be determined from SLA (based on QoS) and peak information rate

(PIR) (desired bit rate)) connection from a source to a destination. At Step 5-3, a virtual

topology in which all links have weighted metrics (an interest value assigned to each

possible path and classify based on interest value) updated to include service volume.

At step 5-4, the best path through the virtual topology is selected.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate the path selection process from Lee in

between steps 46 and steps 48 of figure 3 in Fedyk. The motivation to do so would be

to enable an LER to choose the best possible path without exclusively reserving

bandwidth.

In regards to claim 2, Fedyk teaches that determination of whether a LSP can be accommodated refers to any data-transfer parameter such as desired bitrate or QoS (column 5, lines 50-54).

In regards to claim 3, Fedyk teaches that network path with the least number of hops is typically selected first and the network path with the least number of hops includes LSRs 12-13-14 and based on the available bandwidth (local constraint) (see column 5, lines 43-46).

In regards to claim 4, Fedyk teaches that network path with the least number of hops is typically selected first and the network path with the least number of hops includes LSRs 12-13-14 and based on data transfer parameter such as bit rate and QoS (global constraint) (see column 5, lines 43-46).

In regards to claim 5, Fedyk teaches that desire bit rate and QoS is a used to determined for the criteria for accommodation (see column 5, lines 50-52).

In regards to claim 8, the **shortest** path is selected therefore, every LSR must be visited.

In regards to claim 15, the numbers of hops are compared to the maximum possible cost where cost is the number of hops (see column 6, lines 4-6 and lines 15-18).

In regards to claims 16 and 17, the number of hops are compared to the maximum possible cost where cost is the number of hops (see column 6, lines 4-6 and lines 15-18) and the amount of available, unused bandwidth.

In regards to claim 21, the process in Fedyk is carried out in LER 11.

Conclusion

4.   Claims 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay P. Patel whose telephone number is (571) 272-3086. The examiner can normally be reached on M-F 9:00 am - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JPP 12/21/07

Jay P. Patel
Examiner

Art Unit 2619

EDAN . ORGAD
SUPERVISORY PATENT EXAMINER